

REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 3, 7 and 10 will have been canceled, claims 1, 11, 19, 23-25 and 29 will have been amended, and claims 33 and 34 will have been added. Accordingly, claims 1, 2, 4-9, and 11-34 will be pending with claims 1, 23 and 25 being in independent form.

Summary of the Official Action

In the instant Office Action, the Examiner objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. The Examiner also rejected claims 1-22, 24, 29 and 31 as failing to comply with the enablement requirement. Claims 1-32 were rejected as failing to comply with the written description requirement. The Examiner further also rejected claims 1-32 as indefinite. Finally, the Examiner rejected claims 1-32 over the art of record. By the present amendment and remarks, Applicant submits that the objections and rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Interview of August 17, 2006

Applicant appreciates the courtesy extended by Examiner Maki in the interview of August 17, 2006. In that interview, Applicant's representative explained that the ratio was incorrectly indicated in the specification and claims as being Y/X instead of X/Y. It was

specifically emphasized that this error would be recognized by one having ordinary skill in the art, especially in view of the fact that Fig. 2 is described in the specification as being drawn to scale and clearly shows that the ratio of X/Y increases as the rim size decreases.

Applicant pointed out that the correct ratio would be X/Y and have the following values for different rim sizes:

For $X/Y = 1 - (D_R/100) \times 1.5$

results:

TABLE 1

Tire dimension	D_R in inch	$1 - (D_R/100) \times 1.5$	X in mm	Y* in mm
135/80 R 13	13	0.805	108.675	135
185/55 R 14	14	0.79	146.15	185
195/65 R 15	15	0.775	151.125	195
205/45 R 16	16	0.76	155.8	205
225/45 R 17	17	0.745	167.625	225

(*For the sake of clarity, Y is based on the section width instead of on the somewhat smaller width of the road contact area.)

For $X/Y = 1 - (D_R/100) \times 5$

results:

TABLE 2

Tire dimension	D_R in inch	$1 - (D_R/100) \times 5$	X in mm	Y* in mm
135/80 R 13	13	0.35	47.25	135
185/55 R 14	14	0.3	55.5	185
195/65 R 15	15	0.25	48.75	195
205/45 R 16	16	0.2	41.0	205
225/45 R 17	17	0.15	33.75	225

(*For the sake of clarity, Y is based on the section width instead of on the somewhat smaller width of the road contact area.)

Although the Examiner did not appear to be persuaded that this was clear, the Examiner agreed to consider our arguments in an Amendment in view of the fact that an RCE would be filed in order to have IDS materials considered by the Examiner.

Applicant's representative also explained that the formal rejections should be moot if the incorrect formulas were deleted from the claims and if they were replaced with language describing that the ratio of X/Y increases as the rim size decreases. It was noted that such language is fully and clearly supported by the specification and Fig. 2. The Examiner agreed to consider such claim amendments in an Amendment filed with an RCE.

The Examiner responded by indicating that he would reconsider the rejection in view of such claim amendments upon the filing of Applicant's response.

Objection to the Specification is moot

The Examiner objected to the specification on page 3 of the instant Office Action because the specification allegedly lacks proper antecedent basis for the claimed subject matter.

By this Amendment, Applicant has amended the specification to include the language noted by the Examiner to be lacking therefrom.

In view of the above, Applicant requests that the Examiner reconsider and withdraw the objection to the specification and indicate that the specification is acceptable under the Patent Office Rules.

Traversal of the Section 112, first paragraph, Rejections

Enablement Requirement

Claims 1-22, 24, 29 and 31 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicant submits that this basis of rejection is moot.

The Examiner asserts that the above-noted claims are non-enabled because the recited formulas are non-enabled by the originally filed specification.

While Applicant submits that one having ordinary skill in the art would recognize that the formulas are incorrect as explained in the Interview, Applicant has amended the claims to remove all reference to the formulas in order to render this basis of the rejection moot.

Thus, Applicant respectfully submits that each feature recited in these noted claims, as now amended, finds full and clear support in the original disclosure and the claims are fully enabled.

In view of the above explanation, the Examiner is respectfully requested to withdraw the above-noted rejection.

Written Description Requirement

Claims 1-32 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicant submits that this basis of rejection is improper.

The Examiner asserts that the above-noted claims fail to comply with the written

description requirement essentially because they recite certain features, i.e., those relating to the diagonal grooves being continuously curved and swept back, which do not find literal support in the originally filed specification.

Applicant submits that literal support for claim features is not a requirement of under 35 U.S.C. § 112, first paragraph. Paragraph [0017] of the specification explains that the diagonal grooves can have a "swept back course". Paragraph [0028] of the specification explains that the diagonal grooves can have a "swept back configuration". Furthermore, paragraph [0038] of the specification explains that the diagonal grooves have "an entire course ... selected such that they run beginning between the blocks 7, 8 of the center block rows 3, 5 at least essentially continuously up to the tread rubber edge and beyond this, whereby the type of tread rubber profile called 'swept back' is produced". Note that the language explaining that the grooves "run beginning between the blocks 7, 8" clearly provides support for the grooves extending to the center groove 14. Finally, Figs. 1 and 2 clearly show that the diagonal grooves 13 are continuously curved and extend to the center groove 14.

Applicant reminds the Examiner that "the failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented." See *All Dental Prodx, LLC v. Advantage Dental Products, Inc.*, 309 F.3d 774 (Fed. Cir. 2002) noting *Eiselstein v. Frank*, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995). A copy of the *All Dental Prodx* case

can be provided if the Examiner is unable to obtain a copy of the same. In this case, Applicant submits that not only the recited diagonal grooves are at the very least literally shown in the figures, they are also inherently disclosed in the specification. Thus, it is submitted that one having ordinary skill in the art would readily recognize all of the features of the claimed invention in view of the disclosure of the instant application.

With regard to the Examiner's comments regarding claims 19-21, Applicant notes that all tires inherently have a radial plane as defined in claim 19. Furthermore, it is well known that a radial plane extends from an axis and radially outwards.

Applicant therefore respectfully submits that each feature recited in these noted claims, including the features relating to the diagonal grooves, finds full and clear support in the original disclosure and the claims are fully enabled.

In view of the above explanation, the Examiner is respectfully requested to withdraw the above-noted rejection.

Traversal of the Indefiniteness Rejection

Claims 1-32 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant respectfully disagrees with the Examiner's assertions.

The Examiner asserts that it is not clear what the units for D_R are intended to be. Applicant respectfully disagrees. Original claims 4-6 clearly recite that the units for D_R are in inches and paragraph [0008] of the specification explains that this symbol relates to a diameter of the rim.

The Examiner also asserts rejects the above-noted claims for reasons similar to those relating to the written description requirement. As explained above, the specification provides full and clear support for the recited features of the diagonal grooves. Furthermore, Applicant submits that the requirement that the claims be interpreted in light of the specification provides sufficient basis for the claims being definite. The Examiner is reminded that Applicant is entitled to the broadest reasonable interpretation permitted by the prior art, and that one of ordinary skill in the art, having read the specification, would understand what the claims define.

Finally, Applicant would like to point out that, regarding the section 112, second paragraph issues, the breadth of a claim is not to be equated with indefiniteness. As concerns the breath of a claim, the primary concern is the *scope* of the claim relative to the scope of enablement provided to one skilled in the art by the disclosure. Claims should not be rejected as unduly broad under 35 U.S.C. § 112, second paragraph, for non-inclusion of limitations dealing with factors which must be presumed within the level of one of ordinary skill in the art; the claims need not recite such factors where one of ordinary skill in the art to whom the specification and claims are directed would consider them obvious. *In re Skrivan*, 427 F.2d 801, 166 USPQ 85 (C.C.P.A. 1970).

In view of the above explanation, the Examiner is respectfully requested to withdraw the above-noted rejection.

Traversal of Rejections Under 35 U.S.C. § 102

Over Colombo

Applicant traverses the rejection of claims 1-6, 14, 18, 19 and 22-32 under 35 U.S.C. § 102(a, b) as being anticipated by WO 02/068222 to COLOMBO et al.

The Examiner asserted that this document discloses all the features recited in these claims including the recited grooves, blocks and diagonal grooves. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1; inter alia, each of the left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 23, inter alia, each of the

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left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 25.

Applicant acknowledges that COLOMBO discloses a tire having a center groove 15, center block rows 18 and 19, shoulder block rows 20 and 21, first and second circumferential grooves 16 and 17, swept diagonal grooves 23 and 24, and fine indents in each of the blocks 18-21 (see Fig. 2). However, it is clear from Fig. 2 that COLOMBO does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 18 and 19 are straight and the fine indents of the blocks 20 and 21 comprise straight center portions with angled end portions. It is also clear from Fig. 2 that COLOMBO does not disclose, or even suggest, continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right

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side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 23) and/or continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 25). To the contrary, Figs. 2-4 clearly show that the diagonal grooves have straight sections 27 (see, in particular, Figs. 3 and 4).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of COLOMBO.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because the applied document fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper reading of this document fails to render unpatentable the combination of features recited in at least independent claims 1, 23 and 25.

Moreover, Applicant submits that dependent claims 2, 4-6, 14, 18, 19, 22, 24, 26-32 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of COLOMBO discloses

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or suggests, in combination: that the vehicle tire is a winter tire as recited in claim 2; that D_R comprises one of 14 inches, 15 inches, 16 inches and 17 inches as recited in claim 4; that D_R comprises a value between 12 inches and 21 inches as recited in claim 5; that D_R comprises a value greater than 13 inches as recited in claim 6; that the central circumferential groove forms an axis of symmetry of the tread rubber profile as recited in claim 14; that the plurality of fine indents of the blocks of the pair of center block rows are oriented at an angle of between approximately 80 degrees and approximately 90 degrees relative to the circumferential direction as recited in claim 18; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at a first angle relative to a radial plane of the tire and wherein the plurality of fine indents of the blocks of the pair of center block rows are oriented at a second angle relative to a radial plane of the tire, and wherein the first and second angles comprise values which are between approximately 5 degrees and approximately 15 degrees as recited in claim 19; that the first and second angles comprise a value which is between approximately 5 degrees and approximately 10 degrees as recited in claim 21; that each diagonal groove is both a continuously curved groove and a swept-back groove as recited in claim 22; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 24; that the continuously curved diagonal grooves comprise a width that is less than a width of either of the center circumferential groove and the left and right side circumferential grooves as recited in claim 26; that each of the blocks comprise edges delineating the continuously curved diagonal grooves which are oriented at an angle that is not perpendicular to a circumferential direction as recited in claim 27; that each of

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the blocks comprises a plurality of fine indents running generally parallel to one another as recited in claim 28; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 24 as recited in claim 29; that the vehicle tire is a winter tire as recited in claim 30; that the center circumferential groove is generally narrower than the first and second circumferential grooves as recited in claim 31; and that the center circumferential groove is generally narrower than the left and right side circumferential grooves as recited in claim 32.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Over JP 2003-80907

Applicant traverses the rejection of claims 1-8, 14, 17, 18, 22-25 and 27-32 under 35 U.S.C. § 102(a, b) as being anticipated by JP 2003 -80907.

The Examiner asserted that this document discloses all the features recited in these claims including the recited grooves, blocks and diagonal grooves. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of

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stepped and saw-toothed, as recited in at least independent claim 1; inter alia, that a width of the plurality of fine indents of the blocks of the left and right side shoulder block rows is narrower than a width of the plurality of fine indents of the blocks of the left and right side inner block rows, as recited in independent claim 23, and inter alia, that a width of the plurality of fine indents of the blocks of the left and right side shoulder block rows is narrower than a width of the plurality of fine indents of the blocks of the left and right side inner block rows, as recited in independent claim 25.

Applicant acknowledges that JP '907 discloses a tire having a center groove 1, center block rows 5 and 6, shoulder block rows 3, first and second circumferential grooves 2, swept diagonal grooves 3a/3b, and fine indents in each of the blocks 3, 5 and 6 (see Figs.1-3). However, it is clear from Figs. 1-3 that JP '907 does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while it is apparent that the fine indents of the blocks 3 are sinusoidal, the fine indents of the blocks 5 and 6 are either sinusoidal (Fig. 1), angled (Fig. 2) or straight (Fig. 3). Furthermore, it is not apparent from the figures of JP '907 that this document discloses, or even suggests, that a width of the plurality of fine indents of the blocks of the two shoulder block rows 3 is narrower than a width of the plurality of fine indents of the blocks of the pair of center block rows 5 and 6 (claims 23 and 25).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of JP '907.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because the applied document fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper reading of this document fails to render unpatentable the combination of features recited in at least independent claims 1, 23 and 25.

Moreover, Applicant submits that dependent claims 2, 4-6, 8, 14, 17, 18, 22, 24, 27-32 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of JP '907 discloses or suggests, in combination: that the vehicle tire is a winter tire as recited in claim 2; that D_R comprises one of 14 inches, 15 inches, 16 inches and 17 inches as recited in claim 4; that D_R comprises a value between 12 inches and 21 inches as recited in claim 5; that D_R comprises a value greater than 13 inches as recited in claim 6; that each of the plurality of fine indents of the blocks of the pair of center block rows comprise long sections running at least essentially in a crosswise direction and short sections as recited in claim 8; that the central circumferential groove forms an axis of symmetry of the tread rubber profile as recited in claim 14; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at an angle of between approximately 70 degrees and approximately 85 degrees relative to the circumferential direction as recited in claim 17; that the plurality of fine indents of the blocks of the pair of center block rows are oriented at an angle of

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between approximately 80 degrees and approximately 90 degrees relative to the circumferential direction as recited in claim 18; that each diagonal groove is both a continuously curved groove and a swept-back groove as recited in claim 22; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 24; that each of the blocks comprise edges delineating the continuously curved diagonal grooves which are oriented at an angle that is not perpendicular to a circumferential direction as recited in claim 27; that each of the blocks comprises a plurality of fine indents running generally parallel to one another as recited in claim 28; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 29; that the vehicle tire is a winter tire as recited in claim 30; that the center circumferential groove is generally narrower than the first and second circumferential grooves as recited in claim 31; and that the center circumferential groove is generally narrower than the left and right side circumferential grooves as recited in claim 32.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Traversal of Rejections Under 35 U.S.C. § 103

Over Colombo with Graas

Applicant traverses the rejection of claims 1-6, 14 and 17-32 under 35 U.S.C. § 103(a) as being unpatentable over COLOMBO in view of US Patent 5,198,047 to GRAAS et al.

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The Examiner essentially acknowledges that COLOMBO fails to disclose or suggest the recited ratio but asserts that GRAAS discloses this feature, and that it would have been obvious to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1; inter alia, each of the left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 23, inter alia, each of the left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each

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continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 25.

As explained above, COLOMBO discloses a tire having a center groove 15, center block rows 18 and 19, shoulder block rows 20 and 21, first and second circumferential grooves 16 and 17, swept diagonal grooves 23 and 24, and fine indents in each of the blocks 18-21 (see Fig. 2). However, it is clear from Fig. 2 that COLOMBO does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 18 and 19 are straight and the fine indents of the blocks 20 and 21 comprise straight center portions with angled end portions. It is also clear from Fig. 2 that COLOMBO does not disclose, or even suggest, continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 23) and/or continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each

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continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 25). To the contrary, Figs. 2-4 clearly show that the diagonal grooves have straight sections 27 (see, in particular, Figs. 3 and 4).

GRAAS does not cure the deficiencies of COLOMBO. Applicant acknowledges that GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claims 1, 23 and 25, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3). It is also clear from Fig. 3 that GRAAS does not disclose, or even suggest, continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 23) and/or continuously curved

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diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 25). To the contrary, Figs. 1-3 clearly show that the diagonal grooves 36 are formed by straight edge sections of the blocks (see, in particular, Fig. 3).

Nor has the Examiner identified any prior art which would cure at least these deficiencies so as to support an obviousness rejection.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper combination of COLOMBO and GRAAS.

Because the applied documents fail to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents can render unpatentable the combination of features recited in at least independent claims 1, 23 and 25.

Furthermore, Applicant submits that the Examiner has neglected to set forth any proper basis for combining the teachings of the applied documents. In establishing a *prima facie* case of obviousness under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason *why* one of ordinary skill in the art would have found it obvious to modify a prior art reference or to combine reference teachings to arrive at the claimed invention.

See *Ex parte Clapp*, 227 USPQ 972 (B.P.A.I. 1985) To this end, the requisite motivation
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must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from Applicant's disclosure. See, for example, *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). As noted above, each of the applied art is silent with regard to a number of recited features. Moreover, none of the applied art teach or suggests modifying the tire tread of COLOMBO in the manner asserted by the Examiner.

Because the art of record fails to provide any reasonable explanation why one ordinarily skilled in the art would utilize such a tread arrangement, and/or fails to disclose or suggest the problems that such an arrangement would address, Applicant submits that the art of record fails to provide the requisite motivation or rationale as to *why* one ordinarily skilled in the art would modify COMOLBO in the manner asserted by the Examiner. That is, Applicant submits that because the Examiner has not set forth an articulable reason found in the art of record for modifying COLOMBO in the manner asserted by the Examiner, the instant rejection has no basis in the art of record, such that the rejection is improper and should be withdrawn.

Rejections based on 35 U.S.C. § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner has the initial duty of supplying the factual basis for the rejection and may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. See *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967). As stated in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (P24834 00057960.DOC)

(Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984):

[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

Applicant submits that the only reason to combine the teachings of the applied references in the manner proposed by the Examiner is the result of a review of Applicant's disclosure and the application impermissible hindsight.

Finally, Applicant submits that dependent claims 2, 4-6, 14, 17-22, 24, 26-32 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of COLOMBO discloses or suggests, in combination: that the vehicle tire is a winter tire as recited in claim 2; that D_R comprises one of 14 inches, 15 inches, 16 inches and 17 inches as recited in claim 4; that D_R comprises a value between 12 inches and 21 inches as recited in claim 5; that D_R comprises a value greater than 13 inches as recited in claim 6; that the central circumferential groove forms an axis of symmetry of the tread rubber profile as recited in claim 14; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at an angle of between approximately 70 degrees and approximately 85 degrees relative to the circumferential direction as recited in claim 17; that the plurality of fine indents of the blocks of the pair of center block rows are oriented at an angle of between approximately 80 degrees and approximately 90 degrees relative to the circumferential direction as recited in claim 18; that the plurality of fine indents of the blocks of the two

shoulder block rows are oriented at a first angle relative to a radial plane of the tire and wherein the plurality of fine indents of the blocks of the pair of center block rows are oriented at a second angle relative to a radial plane of the tire, and wherein the first and second angles comprise values which are between approximately 5 degrees and approximately 15 degrees as recited in claim 19; that the first and second angles comprise a value which is between approximately 5 degrees and approximately 10 degrees as recited in claim 21; that each diagonal groove is both a continuously curved groove and a swept-back groove as recited in claim 22; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 24; that the continuously curved diagonal grooves comprise a width that is less than a width of either of the center circumferential groove and the left and right side circumferential grooves as recited in claim 26; that each of the blocks comprise edges delineating the continuously curved diagonal grooves which are oriented at an angle that is not perpendicular to a circumferential direction as recited in claim 27; that each of the blocks comprises a plurality of fine indents running generally parallel to one another as recited in claim 28; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 29; that the vehicle tire is a winter tire as recited in claim 30; that the center circumferential groove is generally narrower than the first and second circumferential grooves as recited in claim 31; and that the center circumferential groove is generally narrower than the left and right side circumferential grooves as recited in claim 32.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Colombo with Graas and Polzlbauer

Applicant respectfully traverses the rejection of claims 7-9 under 35 U.S.C. § 103(a) as unpatentable over COLOMBO and optionally in view of GRAAS and further in view of EP 0 775 600 to POLZLBAUER.

The Examiner acknowledged that COLOMBO as modified by GRAAS lacks, among other things, the recited fine indent configurations. However, the Examiner asserted that these features are obvious and suggested by POLZLBAUER. The Examiner then concluded that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1.

Again, COLOMBO discloses a tire having a center groove 15, center block rows 18 and 19, shoulder block rows 20 and 21, first and second circumferential grooves 16 and

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17, swept diagonal grooves 23 and 24, and fine indents in each of the blocks 18-21 (see Fig. 2). However, it is clear from Fig. 2 that COLOMBO does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 18 and 19 are straight and the fine indents of the blocks 20 and 21 comprise straight center portions with angled end portions.

GRAAS does not cure the deficiencies of COLOMBO. Again, GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claim 1, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3).

POLZLBAUER does not cure the deficiencies of COMOMBO and GRAAS. Applicant acknowledges that POLZLBAUER discloses a tire having a center groove 1, center block rows 4, shoulder block rows 5, and first and second circumferential grooves 3 (see Fig. 1). However, it is clear from a fair review of the disclosure of this document that POLZLBAUER does not disclose, or even suggest, among other things recited in claim 1, that each of the center, the first, and the second circumferential grooves have groove

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edges such that a plane which is perpendicular to the axis of rotation of the tire is located between the groove edges without intersecting the groove edges. To the contrary, it is clear from Fig. 1 that at least the first and second grooves 3 are not straight circumferential grooves, i.e., grooves having groove edges such that a plane which is perpendicular to the axis of rotation of the tire is located between the groove edges without intersecting the groove edges. POLZLBAUER also fails to disclose or suggest that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 5 are stepped and the fine indents of the blocks 4 are also stepped (see Fig. 1).

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of COLOMBO, GRAAS and POLZLBAUER can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify these documents, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

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Finally, Applicant submits that dependent claims 8 and 9 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of COLOMBO, GRAAS and POLZLBAUER discloses or suggests, in combination: that each of the plurality of fine indents of the blocks of the pair of center block rows comprise long sections running at least essentially in a crosswise direction and short sections as recited in claim 8; and that the long sections are alternating consecutive long sections as recited in claim 9.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

Over Colombo with Graas and Peschel

Applicant respectfully traverses the rejection of claims 10-12 and 17-21 under 35 U.S.C. § 103(a) as unpatentable over COLOMBO and optionally in view of GRAAS and further in view of DE 197 05 156 to PESCHEL et al.

The Examiner acknowledged that COLOMBO as modified by GRAAS lacks, among other things, the recited indent configurations. However, the Examiner asserted that these features are obvious and suggested by PESCHEL. The Examiner then concluded that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1.

Again, COLOMBO discloses a tire having a center groove 15, center block rows 18 and 19, shoulder block rows 20 and 21, first and second circumferential grooves 16 and 17, swept diagonal grooves 23 and 24, and fine indents in each of the blocks 18-21 (see Fig. 2). However, it is clear from Fig. 2 that COLOMBO does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 18 and 19 are straight and the fine indents of the blocks 20 and 21 comprise straight center portions with angled end portions.

GRAAS does not cure the deficiencies of COLOMBO. Again, GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claim 1, that the fine indents of the blocks of the two

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shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped (not sinusoidal) and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3).

PESCHEL does not cure the deficiencies of COMOMBO and GRAAS. Applicant acknowledges that PESCHEL apparently discloses a tire having a center groove 3, center block rows 2, shoulder block rows 1, and first and second circumferential grooves 4 (see Fig. 1). However, it is clear from a fair review of the disclosure of this document that PESCHEL does not disclose, or even suggest, among other things recited in claim 1, a tread wherein the diagonal grooves are swept grooves and/or continuously curved grooves that extend from the center circumferential groove to a respective tire edge, such that the diagonal grooves run essentially continuously up to and beyond the respective tire edge and each diagonal groove passing through one of the center block rows and one of the shoulder block rows, whereby the diagonal grooves define the blocks in the circumferential direction. To the contrary, Fig. 1 of PESCHEL merely shows non-curved diagonal grooves in and between the center block rows and the shoulder block rows. PESCHEL also fails to disclose or suggest that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). While it is true that the fine indents of the blocks 1 are sinusoidal, the fine indents of the blocks 2 are also sinusoidal and not one of stepped and saw-toothed (see Fig. 1).

Thus, Applicant submits that the above-noted documents fail to disclose or suggest
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the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of COLOMBO, GRAAS and PESCHEL can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify these documents, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Finally, Applicant submits that dependent claims 11, 12 and 17-21 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of COLOMBO, GRAAS and PESCHEL discloses or suggests, in combination: that each of the plurality of fine indents of the blocks of the two shoulder block rows comprise sinusoidal indents and have different lengths as recited in claim 11; that each of the sinusoidal indents comprises a row of essentially symmetrical wave structures as recited in claim 12; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at an angle of between approximately 70 degrees and approximately 85 degrees relative to the circumferential direction as recited in claim 17; that the plurality of fine indents of the blocks of the pair of

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center block rows are oriented at an angle of between approximately 80 degrees and approximately 90 degrees relative to the circumferential direction as recited in claim 18; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at a first angle relative to a radial plane of the tire and wherein the plurality of fine indents of the blocks of the pair of center block rows are oriented at a second angle relative to a radial plane of the tire, and wherein the first and second angles comprise values which are between approximately 5 degrees and approximately 15 degrees as recited in claim 19; that the first and second angles comprise a value which is approximately 10 degrees as recited in claim 20; and that the first and second angles comprise a value which is between approximately 5 degrees and approximately 10 degrees as recited in claim 21.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

Over Colombo with Graas and Rodewald

Applicant respectfully traverses the rejection of claim 13 under 35 U.S.C. § 103(a) as unpatentable over COLOMBO and optionally in view of GRAAS and further in view of EP 0 846 577 to RODEWALD.

The Examiner acknowledged that COLOMBO as modified by GRAAS lacks, among other things, the recited indent widths. However, the Examiner asserted that these features are obvious and suggested by RODEWALD. The Examiner then concluded that it would have been obvious to one of ordinary skill in the art to combine the teachings of

these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1.

Again, COLOMBO discloses a tire having a center groove 15, center block rows 18 and 19, shoulder block rows 20 and 21, first and second circumferential grooves 16 and 17, swept diagonal grooves 23 and 24, and fine indents in each of the blocks 18-21 (see Fig. 2). However, it is clear from Fig. 2 that COLOMBO does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 18 and 19 are straight and the fine indents of the blocks 20 and 21 comprise straight center portions with angled end portions.

GRAAS does not cure the deficiencies of COLOMBO. Again, GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even

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suggest, among other things recited in claim 1, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3).

RODEWALD does not cure the deficiencies of COMOMBO and GRAAS. Applicant acknowledges that RODEWALD appears to disclose a tire having center rows, shoulder block rows, and first and second circumferential grooves (see Fig. 4). However, it is apparent from a fair review of the drawings of this document that RODEWALD does not disclose, or even suggest, among other things recited in claim 1, a tread wherein the diagonal grooves are swept grooves and/or continuously curved grooves that extend from the center circumferential groove to a respective tire edge, such that the diagonal grooves run essentially continuously up to and beyond the respective tire edge and each diagonal groove passing through one of the center block rows and one of the shoulder block rows, whereby the diagonal grooves define the blocks in the circumferential direction. To the contrary, Fig. 4 of RODEWALD does not show any diagonal grooves passing through the center rows and show non-swept and straight non-curved diagonal grooves in the shoulder block rows. RODEWALD also fails to disclose or suggest that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the shoulder blocks are straight and the fine indents of the center row blocks are also straight (see Figs. 1-4).

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Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of COLOMBO, GRAAS and RODEWALD can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify these documents, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Finally, Applicant submits that dependent claim 13 is allowable at least for the reason that this claim depends from an allowable base claim and because this claim recites additional features that further define the present invention. In particular, Applicant submits that no proper combination of COLOMBO, GRAAS and RODEWALD discloses or suggests, in combination: that a width of the plurality of fine indents of the blocks of the two shoulder block rows is narrower than a width of the plurality of fine indents of the blocks of the pair of center block rows as recited in claim 13.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that this claim is allowable over the applied art of record.

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Over JP '907 with Graas

Applicant traverses the rejection of claims 1-8, 14, 17-25 and 27-32 under 35 U.S.C. § 103(a) as being unpatentable over JP '907 in view of GRAAS.

The Examiner essentially acknowledges that JP '907 fails to disclose or suggest the recited ratio but asserts that GRAAS discloses this feature, and that it would have been obvious to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1; inter alia, each of the left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 23, inter alia, each of the

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left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 25.

As explained above, Applicant acknowledges that JP '907 discloses a tire having a center groove 1, center block rows 5 and 6, shoulder block rows 3, first and second circumferential grooves 2, swept diagonal grooves 3a/3b, and fine indents in each of the blocks 3, 5 and 6 (see Figs. 1-3). However, it is clear from Figs. 1-3 that JP '907 does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while it is apparent that the fine indents of the blocks 3 are sinusoidal, the fine indents of the blocks 5 and 6 are either sinusoidal (Fig. 1), angled (Fig. 2) or straight (Fig. 3), and not stepped or saw-toothed. Furthermore, it is not apparent from the figures of JP '907 that this document discloses, or even suggests, that a width of the plurality of fine indents of the blocks of the two shoulder block rows 3 is narrower than a width of the plurality of fine indents of the blocks of the pair of center block rows 5 and 6 (claims 23 and 25).

GRAAS does not cure the deficiencies of JP '907. Applicant acknowledges that GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claims 1, 23 and 25, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3). It is also clear from Fig. 3 that GRAAS does not disclose, or even suggest, continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 23) and/or continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 25). To the contrary, Figs. {P24834 00057960.DOC}

1-3 clearly show that the diagonal grooves 36 are formed by straight edge sections of the blocks (see, in particular, Fig. 3).

Nor has the Examiner identified any prior art which would cure at least these deficiencies so as to support an obviousness rejection.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper combination of JP '907 and GRAAS.

Because the applied documents fail to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents can render unpatentable the combination of features recited in at least independent claims 1, 23 and 25.

Furthermore, Applicant submits that the Examiner has neglected to set forth any proper basis for combining the teachings of the applied documents. In establishing a *prima facie* case of obviousness under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason *why* one of ordinary skill in the art would have found it obvious to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See *Ex parte Clapp*, 227 USPQ 972 (B.P.A.I. 1985) To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from Applicant's disclosure. See, for example, *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). As noted above, each of the applied are is silent with regard to a number of recited features. Moreover, none of the applied art teach or

suggests modifying the tire tread of JP '907 in the manner asserted by the Examiner.

Because the art of record fails to provide any reasonable explanation why one ordinarily skilled in the art would utilize such a tread arrangement, and/or fails to disclose or suggest the problems that such an arrangement would address, Applicant submits that the art of record fails to provide the requisite motivation or rationale as to *why* one ordinarily skilled in the art would modify JP '907 in the manner asserted by the Examiner. That is, Applicant submits that because the Examiner has not set forth an articulable reason found in the art of record for modifying JP '907 in the manner asserted by the Examiner, the instant rejection has no basis in the art of record, such that the rejection is improper and should be withdrawn.

Finally, Applicant submits that dependent claims dependent claims 2, 4-6, 8, 14, 17-22, 24, 27-32 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of COLOMBO discloses or suggests, in combination: that the vehicle tire is a winter tire as recited in claim 2; that D_R comprises one of 14 inches, 15 inches, 16 inches and 17 inches as recited in claim 4; that D_R comprises a value between 12 inches and 21 inches as recited in claim 5; that D_R comprises a value greater than 13 inches as recited in claim 6; that each of the plurality of fine indents of the blocks of the pair of center block rows comprise long sections running at least essentially in a crosswise direction and short sections as recited in claim 8; that the central circumferential groove forms an axis of symmetry of the tread rubber profile as recited in claim 14; that the plurality of fine indents of the blocks of the two shoulder

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block rows are oriented at an angle of between approximately 70 degrees and approximately 85 degrees relative to the circumferential direction as recited in claim 17; that the plurality of fine indents of the blocks of the pair of center block rows are oriented at an angle of between approximately 80 degrees and approximately 90 degrees relative to the circumferential direction as recited in claim 18; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at a first angle relative to a radial plane of the tire and wherein the plurality of fine indents of the blocks of the pair of center block rows are oriented at a second angle relative to a radial plane of the tire, and wherein the first and second angles comprise values which are between approximately 5 degrees and approximately 15 degrees as recited in claim 19; that the first and second angles comprise a value which is between approximately 5 degrees and approximately 10 degrees as recited in claim 21; that each diagonal groove is both a continuously curved groove and a swept-back groove as recited in claim 22; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 24; that each of the blocks comprise edges delineating the continuously curved diagonal grooves which are oriented at an angle that is not perpendicular to a circumferential direction as recited in claim 27; that each of the blocks comprises a plurality of fine indents running generally parallel to one another as recited in claim 28; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 29; that the vehicle tire is a winter tire as recited in claim 30; that the center circumferential groove is generally narrower than the first and second circumferential grooves as recited in claim 31; and that the center

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circumferential groove is generally narrower than the left and right side circumferential grooves as recited in claim 32.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over JP '907 with Graas and Polzlbauer

Applicant respectfully traverses the rejection of claims 7-9 under 35 U.S.C. § 103(a) as unpatentable over JP '907 and optionally in view of GRAAS and further in view of POLZLBAUER.

The Examiner acknowledged that JP '907 as modified by GRAAS lacks, among other things, the recited fine indent configurations. However, the Examiner asserted that these features are obvious and suggested by POLZLBAUER. The Examiner then concluded that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1.

Again, Applicant acknowledges that JP '907 discloses a tire having a center groove 1, center block rows 5 and 6, shoulder block rows 3, first and second circumferential grooves 2, swept diagonal grooves 3a/3b, and fine indents in each of the blocks 3, 5 and 6 (see Figs. 1-3). However, it is clear from Figs. 1-3 that JP '907 does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while it is apparent that the fine indents of the blocks 3 are sinusoidal, the fine indents of the blocks 5 and 6 are either sinusoidal (Fig. 1), angled (Fig. 2) or straight (Fig. 3), and not stepped or saw-toothed.

GRAAS does not cure the deficiencies of JP '907. Again, GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claim 1, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3).

POLZLBAUER does not cure the deficiencies of JP '907 and GRAAS. Applicant acknowledges that POLZLBAUER discloses a tire having a center groove 1, center block rows 4, shoulder block rows 5, and first and second circumferential grooves 3 (see Fig. 1). However, it is clear from a fair review of the disclosure of this document that

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POLZLBAUER does not disclose, or even suggest, among other things recited in claim 1, that each of the center, the first, and the second circumferential grooves have groove edges such that a plane which is perpendicular to the axis of rotation of the tire is located between the groove edges without intersecting the groove edges. To the contrary, it is clear from Fig. 1 that at least the first and second grooves 3 are not a straight circumferential grooves, i.e., grooves having groove edges such that a plane which is perpendicular to the axis of rotation of the tire is located between the groove edges without intersecting the groove edges. POLZLBAUER also fails to disclose or suggest that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while the fine indents of the blocks 4 are stepped, the fine indents of the blocks 5 are also stepped (not sinusoidal).

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of JP '907, GRAAS and POLZLBAUER can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify these documents, in the manner suggested by the Examiner.

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Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Finally, Applicant submits that dependent claims 8 and 9 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of JP '907, GRAAS and POLZLBAUER discloses or suggests, in combination: that each of the plurality of fine indents of the blocks of the pair of center block rows comprise long sections running at least essentially in a crosswise direction and short sections as recited in claim 8; and that the long sections are alternating consecutive long sections as recited in claim 9.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

Over JP '907 with Graas and Peschel

Applicant respectfully traverses the rejection of claims 10-12 and 17-21 under 35 U.S.C. § 103(a) as unpatentable over JP '907 and optionally in view of GRAAS and further in view of DE 197 05 156 to PESCHEL et al.

The Examiner acknowledged that JP '907 as modified by GRAAS lacks, among other things, the recited indent configurations. However, the Examiner asserted that these features are obvious and suggested by PESCHEL. The Examiner then concluded that it would have been obvious to one of ordinary skill in the art to combine the teachings of

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these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1.

Again, Applicant acknowledges that JP '907 discloses a tire having a center groove 1, center block rows 5 and 6, shoulder block rows 3, first and second circumferential grooves 2, swept diagonal grooves 3a/3b, and fine indents in each of the blocks 3, 5 and 6 (see Figs. 1-3). However, it is clear from Figs. 1-3 that JP '907 does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while it is apparent that the fine indents of the blocks 3 are sinusoidal, the fine indents of the blocks 5 and 6 are either sinusoidal (Fig. 1), angled (Fig. 2) or straight (Fig. 3), and not stepped or saw-toothed.

GRAAS does not cure the deficiencies of JP '907. Again, GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even

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suggest, among other things recited in claim 1, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3).

PESCHEL does not cure the deficiencies of JP '907 and GRAAS. Applicant acknowledges that PESCHEL apparently discloses a tire having a center groove 3, center block rows 2, shoulder block rows 1, and first and second circumferential grooves 4 (see Fig. 1). However, it is clear from a fair review of the disclosure of this document that PESCHEL does not disclose, or even suggest, among other things recited in claim 1, a tread wherein the diagonal grooves are swept grooves and/or continuously curved grooves that extend from the center circumferential groove to a respective tire edge, such that the diagonal grooves run essentially continuously up to and beyond the respective tire edge and each diagonal groove passing through one of the center block rows and one of the shoulder block rows, whereby the diagonal grooves define the blocks in the circumferential direction. To the contrary, Fig. 1 of PESCHEL merely shows non-curved diagonal grooves in and between the center block rows and the shoulder block rows. PESCHEL also fails to disclose or suggest that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). While it is true that the fine indents of the blocks 1 are sinusoidal, the fine indents of the blocks 2 are also sinusoidal and not one of stepped and saw-toothed (see Fig. 1).

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of JP '907, GRAAS and PESCHEL can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify these documents, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Finally, Applicant submits that dependent claims 11, 12 and 17-21 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of JP '907, GRAAS and PESCHEL discloses or suggests, in combination: that each of the plurality of fine indents of the blocks of the two shoulder block rows comprise sinusoidal indents and have different lengths as recited in claim 11; that each of the sinusoidal indents comprises a row of essentially symmetrical wave structures as recited in claim 12; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at an angle of between approximately 70 degrees and approximately 85 degrees relative to the circumferential

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direction as recited in claim 17; that the plurality of fine indents of the blocks of the pair of center block rows are oriented at an angle of between approximately 80 degrees and approximately 90 degrees relative to the circumferential direction as recited in claim 18; that the plurality of fine indents of the blocks of the two shoulder block rows are oriented at a first angle relative to a radial plane of the tire and wherein the plurality of fine indents of the blocks of the pair of center block rows are oriented at a second angle relative to a radial plane of the tire, and wherein the first and second angles comprise values which are between approximately 5 degrees and approximately 15 degrees as recited in claim 19; that the first and second angles comprise a value which is approximately 10 degrees as recited in claim 20; and that the first and second angles comprise a value which is between approximately 5 degrees and approximately 10 degrees as recited in claim 21.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

Over JP '907 with Graas and Rodewald

Applicant respectfully traverses the rejection of claim 13 under 35 U.S.C. § 103(a) as unpatentable over JP '907 and optionally in view of GRAAS and further in view of EP 0 846 577 to RODEWALD.

The Examiner acknowledged that JP '907 as modified by GRAAS lacks, among other things, the recited indent widths. However, the Examiner asserted that these features are obvious and suggested by RODEWALD. The Examiner then concluded that it

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would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1.

Again, Applicant acknowledges that JP '907 discloses a tire having a center groove 1, center block rows 5 and 6, shoulder block rows 3, first and second circumferential grooves 2, swept diagonal grooves 3a/3b, and fine indents in each of the blocks 3, 5 and 6 (see Figs. 1-3). However, it is clear from Figs. 1-3 that JP '907 does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while it is apparent that the fine indents of the blocks 3 are sinusoidal, the fine indents of the blocks 5 and 6 are either sinusoidal (Fig. 1), angled (Fig. 2) or straight (Fig. 3).

GRAAS does not cure the deficiencies of JP '907. Again, GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from (P24834 00057960.DOC)

a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claims 1, 23 and 25, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3).

RODEWALD does not cure the deficiencies of JP '907 and GRAAS. Applicant acknowledges that RODEWALD appears to disclose a tire having center rows, shoulder block rows, and first and second circumferential grooves (see Fig. 4). However, it is apparent from a fair review of the drawings of this document that RODEWALD does not disclose, or even suggest, among other things recited in claim 1, a tread wherein the diagonal grooves are swept grooves and/or continuously curved grooves that extend from the center circumferential groove to a respective tire edge, such that the diagonal grooves run essentially continuously up to and beyond the respective tire edge and each diagonal groove passing through one of the center block rows and one of the shoulder block rows, whereby the diagonal grooves define the blocks in the circumferential direction. To the contrary, Fig. 4 of RODEWALD does not shows any diagonal grooves passing through the center rows and shows non-swept and straight non-curved diagonal grooves in the shoulder block rows. RODEWALD also fails to disclose or suggest that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the shoulder blocks are straight and the fine indents of

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the center row blocks are also straight (see Figs. 1-4).

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of JP '907, GRAAS and RODEWALD can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify these documents, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Finally, Applicant submits that dependent claim 13 is allowable at least for the reason that this claim depends from an allowable base claim and because this claim recites additional features that further define the present invention. In particular, Applicant submits that no proper combination of JP '907, GRAAS and RODEWALD discloses or suggests, in combination: that a width of the plurality of fine indents of the blocks of the two shoulder block rows is narrower than a width of the plurality of fine indents of the blocks of the pair of center block rows as recited in claim 13.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that this claim is allowable
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over the applied art of record.

Over JP '907 with Graas and JP '024

Applicant respectfully traverses the rejection of claims 15 and 16 under 35 U.S.C. § 103(a) as unpatentable over JP '907 and optionally in view of GRAAS and further in view of JP 5-319024.

The Examiner acknowledged that JP '907 as modified by GRAAS lacks, among other things, the recited center groove width. However, the Examiner asserted that these features are obvious and suggested by JP '024. The Examiner then concluded that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1.

Again, Applicant acknowledges that JP '907 discloses a tire having a center groove 1, center block rows 5 and 6, shoulder block rows 3, first and second circumferential grooves 2, swept diagonal grooves 3a/3b, and fine indents in each of the blocks 3, 5 and 6
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(see Figs. 1-3). However, it is clear from Figs. 1-3 that JP '907 does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while it is apparent that the fine indents of the blocks 3 are sinusoidal, the fine indents of the blocks 5 and 6 are either sinusoidal (Fig. 1), angled (Fig. 2) or straight (Fig. 3).

GRAAS does not cure the deficiencies of JP '907. Again, GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claims 1, 23 and 25, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3).

JP '024 does not cure the deficiencies of JP '907 and GRAAS. Applicant acknowledges that JP '024 appears to disclose a tire having center rows, shoulder block rows, and first and second circumferential grooves (see Fig. 5). However, it is apparent from a fair review of the drawings of this document that JP '024 does not disclose, or even suggest, among other things recited in claim 1, a tread wherein the diagonal grooves are swept grooves and/or continuously curved grooves that extend from the center circumferential groove to a respective tire edge, such that the diagonal grooves run

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essentially continuously up to and beyond the respective tire edge and each diagonal groove passing through one of the center block rows and one of the shoulder block rows, whereby the diagonal grooves define the blocks in the circumferential direction. To the contrary, Fig. 5 of JP '024 does not show any diagonal grooves passing through the center rows and shows non-swept and straight non-curved diagonal grooves in the shoulder block rows. JP '024 also fails to disclose or suggest that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the shoulder blocks are straight and the fine indents of the center row blocks are also straight (see Figs. 1-5).

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of JP '907, GRAAS and JP '024 can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify these documents, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Finally, Applicant submits that dependent claims 15 and 16 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of JP '907, GRAAS and JP '024 discloses or suggests, in combination: that at least some of the blocks arranged on opposite sides of the central circumferential groove are spaced from the axis of symmetry between approximately 5 mm and approximately 50 mm as recited in claim 15; and that at least some of the blocks arranged on opposite sides of the central circumferential groove are spaced from the axis of symmetry by approximately 11.5 mm as recited in claim 16.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

Over JP '907 with Graas and Colombo

Applicant traverses the rejection of claims 25-32 under 35 U.S.C. § 103(a) as being unpatentable over JP '907 and optionally in view of GRAAS and further in view of COLOMBO.

The Examiner essentially acknowledges that JP '907 as modified by GRAAS fails to disclose or suggest the recited groove widths, but asserts that COLOMBO discloses this feature, and that it would have been obvious to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, each of the two shoulder block rows and each of the pair of center block rows comprising blocks, each of the blocks comprising a plurality of fine indents running generally parallel to one another, and the fine indents of the blocks of the two shoulder block rows being sinusoidal indents and the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed, as recited in at least independent claim 1; inter alia, each of the left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 23, inter alia, each of the left and right side shoulder block rows and each of the left and right side inner block rows comprising blocks, the blocks being defined by continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right

side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row, as recited in independent claim 25.

As explained above, Applicant acknowledges that JP '907 discloses a tire having a center groove 1, center block rows 5 and 6, shoulder block rows 3, first and second circumferential grooves 2, swept diagonal grooves 3a/3b, and fine indents in each of the blocks 3, 5 and 6 (see Figs.1-3). However, it is clear from Figs. 1-3 that JP '907 does not disclose, or even suggest, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, while it is apparent that the fine indents of the blocks 3 are sinusoidal, the fine indents of the blocks 5 and 6 are either sinusoidal (Fig. 1), angled (Fig. 2) or straight (Fig. 3). Furthermore, it is not apparent from the figures of JP '907 that this document discloses, or even suggests, that a width of the plurality of fine indents of the blocks of the two shoulder block rows 3 is narrower than a width of the plurality of fine indents of the blocks of the pair of center block rows 5 and 6 (claims 23 and 25).

GRAAS does not cure the deficiencies of JP '907. Applicant acknowledges that GRAAS discloses a tire having a center groove 5, center block rows 31 and 32, shoulder block rows 30 and 33, and first and second circumferential grooves 4 and 6 (see Fig. 3). However, it is clear from a fair review of the disclosure of this document that GRAAS does not disclose, or even suggest, among other things recited in claims 1, 23 and 25, that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-

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toothed (claim 1). To the contrary, the fine indents of the blocks 30 and 33 are stepped and the fine indents of the blocks 31 and 32 are also stepped (see Fig. 3). It is also clear from Fig. 3 that GRAAS does not disclose, or even suggest, continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 23) and/or continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 25). To the contrary, Figs. 1-3 clearly show that the diagonal grooves 36 are formed by straight edge sections of the blocks (see, in particular, Fig. 3).

COLOMBO does not cure the deficiencies of JP '907 and GRAAS. As explained above, COLOMBO discloses a tire having a center groove 15, center block rows 18 and 19, shoulder block rows 20 and 21, first and second circumferential grooves 16 and 17, swept diagonal grooves 23 and 24, and fine indents in each of the blocks 18-21 (see Fig. 2). However, it is clear from Fig. 2 that COLOMBO does not disclose, or even suggest,

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that the fine indents of the blocks of the two shoulder block rows are sinusoidal indents and that the fine indents of the blocks of the pair of center block rows being one of stepped and saw-toothed (claim 1). To the contrary, the fine indents of the blocks 18 and 19 are straight and the fine indents of the blocks 20 and 21 comprise straight center portions with angled end portions. It is also clear from Fig. 2 that COLOMBO does not disclose, or even suggest, continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 23) and/or continuously curved diagonal grooves that extend from the center circumferential groove to a respective tread rubber edge, each continuously curved diagonal groove running essentially continuously up to and beyond the respective tread rubber edge, whereby left side continuously curved diagonal grooves pass through the left side inner block row and the left side shoulder block row and whereby right side continuously curved diagonal grooves pass through the right side inner block row and the right side shoulder block row (claim 25). To the contrary, Figs. 2-4 clearly show that the diagonal grooves have straight sections 27 (see, in particular, Figs. 3 and 4).

Nor has the Examiner identified any prior art which would cure at least these deficiencies so as to support an obviousness rejection.

Thus, Applicant submits that the above-noted claims are not disclosed, or even

suggested, by any proper combination of JP '907, GRAAS and COLOMBO.

Because the applied documents fail to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents can render unpatentable the combination of features recited in at least independent claims 1, 23 and 25.

Furthermore, Applicant submits that the Examiner has neglected to set forth any proper basis for combining the teachings of the applied documents. In establishing a *prima facie* case of obviousness under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason *why* one of ordinary skill in the art would have found it obvious to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. *See Ex parte Clapp*, 227 USPQ 972 (B.P.A.I. 1985) To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from Applicant's disclosure. See, for example, *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). As noted above, each of the applied are is silent with regard to a number of recited features. Moreover, none of the applied art teach or suggests modifying the tire tread of JP '907 in the manner asserted by the Examiner.

Because the art of record fails to provide any reasonable explanation why one ordinarily skilled in the art would utilize such a tread arrangement, and/or fails to disclose or suggest the problems that such an arrangement would address, Applicant submits that the art of record fails to provide the requisite motivation or rationale as to *why* one ordinarily

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skilled in the art would modify JP '907 in the manner asserted by the Examiner. That is, Applicant submits that because the Examiner has not set forth an articulable reason found in the art of record for modifying JP '907 in the manner asserted by the Examiner, the instant rejection has no basis in the art of record, such that the rejection is improper and should be withdrawn.

Finally, Applicant submits that dependent claims dependent claims 26-32 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of JP '907, GRAAS and COLOMBO discloses or suggests, in combination: that the continuously curved diagonal grooves comprise a width that is less than a width of either of the center circumferential groove and the left and right side circumferential grooves as recited in claim 26; that each of the blocks comprise edges delineating the continuously curved diagonal grooves which are oriented at an angle that is not perpendicular to a circumferential direction as recited in claim 27; that each of the blocks comprises a plurality of fine indents running generally parallel to one another as recited in claim 28; that a ratio of the width X to the width Y increases as a diameter of a rim D_R to which the vehicle tire can be connected decreases as recited in claim 29; that the vehicle tire is a winter tire as recited in claim 30; that the center circumferential groove is generally narrower than the first and second circumferential grooves as recited in claim 31; and that the center circumferential groove is generally narrower than the left and right side circumferential grooves as recited in claim 32.

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Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

New Claims are also Allowable

Applicant submits that the new claims 33 and 34 are allowable over the applied art of record. Specifically, claims 33 and 34 depend from claims 23 and 25 which are believed to be allowable. Furthermore, claims 33 and 34 recite a combination of features which are clearly not disclosed or suggested by the applied art of record. Accordingly, Applicant respectfully requests consideration of these claims and further requests that the above-noted claims be indicated as being allowable.

CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

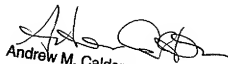
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Should there be any questions, the Examiner is invited to contact the undersigned attorney at the number listed below.

Respectfully submitted,
Hinnerk KAISER et al.



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